CLAIMS

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1. A cask having a structure that the shape of the inside of a cavity of a shell main body that has a neutron shielding unit at its outer periphery and shields the γ-rays is matched with the external shape of a basket having an angular cross section that is structured by a plurality of angular pipes having neutron absorbing property in a status that these pipes are inserted into the cavity, whereby each used nuclear fuel aggregate is accommodated in each cell of the basket inserted into the cavity.

2. The cask according to claim 1, wherein a part of the inside of the cavity is matched with the external shape of the basket.

3. A cask having a structure that the shape of either one of the inner surface of a cavity of a shell main body that has a neutron shielding unit at its outer periphery and shields the γ-rays and the outer surface of a basket that has latticed cells structured by a plurality of angular pipes having neutron absorbing property, is matched with the shape of the other, whereby each used nuclear fuel aggregate is accommodated in each cell of the basket inserted into the cavity.

4. The cask according to any one of claims 1 to 3, wherein dummy pipes are further provided, and the shape of a portion within the cavity that has room in the thickness of the shell main body is matched with the shape of the dummy pipes, whereby the dummy pipes are inserted into the cavity together with the basket in a state that the dummy pipes are in contact with the angular pipes.

5. The cask according to any one of claims 1 to 4, wherein auxiliary shielding units for shielding the γ-rays are further provided at portions of the outermost side of the shell main body that has a small thickness of the shell main body.

6. A cask having a structure that spacers are provided between a cavity of a shell main body that has a neutron shielding unit at its outer periphery and shields the γ-rays and a basket that has latticed cells structured by a plurality of angular pipes having neutron absorbing property, whereby each used nuclear fuel aggregate is accommodated in each cell of the basket inserted into the cavity.

7. The cask according to any one of claims 1 to 6, wherein a plurality of angular pipes that constitute the basket are integrated together before they are inserted into the cavity.

8. A cask comprising:

a basket having a plurality of latticed cells formed for accommodating used nuclear fuel aggregates, by bundling a plurality of angular pipes having neutron absorbing material added to a structural material;

a shell main body having a cylindrical cavity that has been forged from a γ-rays shielding material, and that is plane processed by matching the shape of the inside of this cavity with the external shape of the basket constructed of the angular pipes; and

a neutron shielding unit having a plurality of internal fins extended between the shell main body and an external cylinder, and for shielding neutrons filled in a space formed by the shell main body, the external cylinder and the internal fins, wherein

the angular pipe are sequentially inserted into the cavity to structure the basket while bringing the outer surface of the basket into contact with the inner surface of the cavity.

9. A cask having a structure that the shape of the inside of a cavity of a shell main body that has a neutron shielding unit at its outer periphery and shields the γ-rays is matched with the external shape of a basket that has a latticed angular cross-sectional shape by alternately combining in an

orthogonal direction a plurality of plates having neutron absorbing property, whereby each used nuclear fuel aggregate is accommodated in each cell of the basket inserted into the cavity.

10. The cask according to claim 9, wherein a part of the inside of the cavity is matched with the external shape of the basket.

11. The cask according to claim 9 or 10, wherein dummy pipes are further provided, and the shape of a portion within the cavity that has room in the thickness of the shell main body is matched with the shape of the dummy pipes, whereby the dummy pipes are inserted into the cavity together with the basket in a state that the dummy pipes are in contact with the plates.

12. The cask according to any one of claims 9 to 11, wherein when the basket is constructed by combining the plates, a thermal conductive plate having a contact with the cavity wall is provided at the end of each plate positioned at the outer periphery of the basket.

13. The cask according to any one of claims 9 to 11, wherein when the basket is constructed by combining the plates, a thermal conductive plate is provided between the end of each plate positioned at the outer periphery of the basket and the end of the other plate.